

THE MICROBIOLOGICAL OXIDATION OF FERROUS
IRON IN MINE DRAINAGE WATER

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ABSTRACT

Acidophylic iron bacteria have been investigated at the laboratory level for their abilities to grow and oxidize soluble ferrous iron in synthetic and natural mine drainage waters. The influence of pH, temperature, aeration and other variables on the metabolic activities of these microorganisms were determined using both batch and continuous culture techniques. The results of these studies, as they would affect the use of these microorganisms in treating mine drainage water, are discussed. Plans for constructing a large scale field test system are also presented.